WHAT IS CLAIMED IS:

1. A method of forming an anode comprising the steps of pressing a mixture comprising oxygen reduced niobium oxide powder and at least one binder or lubricant or both to form a pressed anode, wherein said mixture is prepared by coating said oxygen reduced niobium oxide powder with said binder and/or lubricant.

2. The method of claim 1, wherein said coating is accomplished by atomizing said mixture into droplets.

3. The method of claim 1, wherein said coating is accomplished by spray drying said mixture.

4. The method of claim 1, wherein said coating is accomplished by fluid bed processing.

5. The method of claim 1, wherein said coating is accomplished by coacervation.

6. The method of claim 1, wherein said coating is accomplished by microencapsulation.

7. The method of claim 1, wherein said oxygen reduced niobium oxide has an atomic ratio of niobium to oxygen of 1: less than 2.5.

8. The method of claim 1, wherein said niobium oxide is NbO.

9. The method of claim 1, wherein said niobium oxide comprises NbO, $NbO_{0.7}$, $NbO_{1.1}$, or combinations thereof.

10. The method of claim 1, further comprising de-binding or de-lubing the binder or lubricant.

11. The method of claim 10, wherein said de-binding or de-lubing is accomplished by thermally decomposing said binder or lubricant.

12. The method of claim 10, wherein said de-binding or de-lubing is accomplished by repeated washings in at least one solvent capable of removing said binder or lubricant.

13. The method of claim 10, further comprising sintering the anode in a vacuum or under an inert atmosphere.

14. The method of claim 1, wherein said binder or lubricant comprises an organic binder or lubricant.

15. The method of claim 1, wherein said binder or lubricant comprises poly(propylene carbonate), alkyd resin solution, polyethylene glycol, polyvinyl alcohol, stearic acid, ammonium carbonate, camphor, polypropylene oxide, or combinations thereof.

16. A pressed anode formed from the process of claim 1.

17. The pressed anode of claim 16, wherein said anode has a low carbon residue after removal of the binder or lubricant and after sintering.

18. A method of forming an anode comprising the steps of pressing a mixture comprising oxygen reduced valve metal oxide powder and at least one binder or lubricant or both to form a pressed anode, wherein said mixture is prepared by coating said oxygen reduced valve metal oxide powder with said binder and/or lubricant.

19. The method of claim 18, wherein said coating is accomplished by atomizing said mixture into droplets.

20. The method of claim 18, wherein said coating is accomplished by spray drying said mixture.

21. The method of claim 18, wherein said coating is accomplished by fluid bed processing.

22. The method of claim 18, wherein said coating is accomplished by coacervation.

23. The method of claim 18. wherein said coating is accomplished by microencapsulation.

24. The method of claim 18, wherein said oxygen reduced valve metal oxide comprises oxygen reduced tantalum oxide, oxygen reduced aluminum oxide, oxygen reduced titanium oxide, oxygen reduced zirconium oxide, alloys thereof or combinations thereof.

25. The method of claim 18, wherein said oxygen reduced valve metal oxide has an atomic ratio of valve metal to oxygen of 1: less than 2.5.

26. A pressed anode formed from the process of claim 18.

27. A method of forming an agglomerated product comprising the steps of agglomerating a mixture comprising an oxygen reduced valve metal oxide powder and at least one additive to form an agglomerated product, wherein said mixture is prepared by coating said oxygen reduced valve metal oxide powder with said additive.